Forensic Delay and Quantum Analysis: Driving Clarity in Construction Disputes

In today's global construction landscape, project delays and cost overruns are common challenges that often lead to high-stakes disputes. Navigating these complex situations requires more than technical know-how—it demands forensic expertise, impartial analysis, and the ability to present evidence with clarity.

At DAC Consulting Services, we specialise in Forensic Delay and Quantum Analysis, delivering reliable, evidence-based insights that help clients, courts, and tribunals understand the causes, consequences, and financial impacts of project delays. With offices across the UK, Middle East, and the Americas, our experts combine global reach with local knowledge to support litigation, arbitration, and mediation proceedings.

The Core of Forensic Delay Analysis

Delay analysis lies at the heart of construction dispute resolution. At DAC, we approach each case with a structured methodology designed to answer four critical questions:

1. **What was planned?** – Reviewing the project's baseline schedule and contractual intentions.
2. **What actually happened?** – Analysing how the project deviated from its original path.
3. **What critical delay was incurred?** – Identifying the disruptions that impacted the critical path.
4. **What caused these delays?** – Tracing events, conditions, or issues that materially influenced outcomes.

Our team has been appointed in more than 50 major international disputes under arbitration rules including ICC, UNCITRAL, LCIA, DIFC, and SIAC, earning recognition for rigorous, impartial assessments.

Tailored Approaches and Methodologies

Every project is unique, and so is our analytical approach. DAC experts apply a range of delay analysis techniques depending on project complexity, data availability, and dispute requirements:

- **Planned vs. Actual (Total Time Approach)** – Comparing initial schedules with actual performance.
- **As-Planned Impacted Analysis** – Measuring the effect of specific events on project timelines.
- **Collapsed As-Built Analysis** – Assessing hypothetical performance absent key delays.
- **Time Impact Analysis** – Quantifying the impact of change events on schedules.

- **Windows Analysis** – Breaking timelines into periods to evaluate evolving delay dynamics.

This flexible methodology ensures that our findings are both fact-based and defensible in court or arbitration settings.

Quantum Analysis: Linking Time and Cost

Alongside delay analysis, quantum assessments provide the financial dimension of disputes. At DAC, our quantum experts ground their work in contractual records, financial documentation, and project data, ensuring calculations are both precise and contextually accurate.

Key applications include:

- **Prolongation Claims** – Evaluating costs linked to extended project durations.
- **Disruption Claims** – Quantifying productivity losses and inefficiencies.
- **Delay in Start-Up (DSU) Claims** – Supporting insurance claims for business interruption.
- **Global Claims** – Breaking down bundled claims into clear, evidence-backed narratives.

By integrating delay and quantum findings, we offer a cohesive, fact-driven perspective that clarifies cause-and-effect relationships in complex disputes.

Why Clients Choose DAC

- **Multidisciplinary Expertise** – Our delay and quantum specialists work hand-in-hand with engineers, schedulers, and industry experts.
- **Credibility in High-Stakes Cases** – DAC experts have been cross-examined in High Court litigation and international arbitration, with reputations built on impartiality and precision.
- **Global Presence** – With experts located worldwide, we combine global standards with local insights.
- **Proven Track Record** – We've supported projects spanning geothermal plants, LNG facilities, pipelines, refineries, offshore platforms, and renewable energy farms.
- **Client-Centric Approach** – Every analysis is tailored to the dispute's specific requirements, ensuring clarity and effectiveness.

Industries We Support

Our forensic expertise spans a broad range of industries, including:

- **Oil & Gas** – From upstream projects to downstream refining disputes.
- **Power Generation** – Covering coal, nuclear, and renewable facilities.
- **Renewable Energy** – Supporting wind, solar, and hydroelectric initiatives.
- **Construction & Infrastructure** – Airports, metro systems, bridges, and urban developments.
- **Manufacturing & Industrial Facilities** – Ensuring operational continuity and efficiency.

Building Stronger Outcomes

At DAC Consulting Services, we encourage clients to engage our experts early in the dispute process. A well-prepared First Report can identify gaps in evidence, clarify cause-and-effect, and establish a fact-based narrative that strengthens a client's position before courts or tribunals.

Our mission is clear: to deliver exceptional outcomes through rigorous forensic analysis, deep technical expertise, and a commitment to impartiality.

Get in Touch

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